

At page 37, line 25, delete "(see Fig. 1)".

At page 38, line 7, delete ", and the" and insert --. The--.

At page 38, line 23, after "formed" delete ",".

At page 38, line 24 after "21" delete "," and insert --and--.

At page 39, line 12, delete "If a" and insert --A--.

At page 39, line 14, delete ", a" and insert --. A--.

At page 39, lines 16-17, delete ", and an" and insert --. An--.

At page 39, line 18, delete ", then it" and insert --. It--.

At page 40, line 16, delete ", and the" and insert --. The--.

At page 41, line 11, delete ", and the" and insert --. The--.

At page 41, line 18, delete ", and the" and insert --. The--.

In the Claims

Please amend claims 1, 3-5 and 9 as follows:

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Sub B1

1. (Amended) A thin film magnetic head comprising:
a lower core layer; an upper core layer; at least one insulating layer positioned between the lower core layer and the upper core layer; a track width restricting groove being formed in the insulating layer; and at least one of a lower magnetic pole layer and an upper magnetic pole layer, the lower magnetic pole layer continuing from the lower core layer, [and/or an] the upper magnetic pole layer continuing from the upper core layer, and a gap layer positioned between one of the core layers and one of the magnetic pole layers that opposes the core layer or between the two magnetic pole layers being provided in the track width restricting groove,
wherein a stopper layer is placed, in a portion excluding the track width restricting groove, between the lower core layer and the insulating layer, and the stopper layer is formed of an insulating material having an etching rate lower than a reactive ion etching rate of the insulating layer.

A21

3. (Amended) A thin film magnetic head according to Claim 1, wherein an etching rate of the stopper layer in reactive ion etching is [lower] less than the etching rate of the insulating layer by ten times or more.

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4. (Amended) A thin film magnetic head according to Claim 3, wherein the insulating layer is formed of SiO_2 [while] and the stopper layer is formed of at least one of Al_2O_3 [and/or] and Si_3N_4 .

5. (Amended) A manufacturing method for a thin film magnetic head formed of a lower core layer, an insulating layer, and an upper core layer that are deposited in this order, comprising the steps of:

forming a stopper layer which is composed of an insulating material on a lower core layer;

forming[, on the stopper layer,] at least one insulating layer on the stopper layer, the insulating layer composed of an insulating material having an etching rate higher than a reactive ion etching rate of the insulating material used for the stopper layer;

forming a mask on the insulating layer at a predetermined gap;
etching the insulating layer exposed in the gap by reactive ion etching and removing the insulating layer until the stopper layer is exposed so as to form a track width restricting groove;

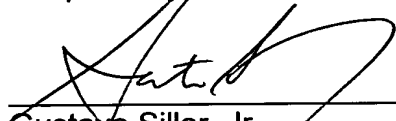
removing the stopper layer exposed in the track width restricting groove by the reactive ion etching to expose the lower core layer;

forming a lower magnetic pole layer continuing from the lower core layer and a gap layer on a lower magnetic pole layer, or forming the gap layer on the lower core layer, in the track width restricting groove; and

forming an upper magnetic pole layer on the gap layer and forming an upper core layer on the upper magnetic pole layer, or forming the upper core layer directly on the gap layer, in the track width restricting groove.

9. (Amended) A manufacturing method for a thin film magnetic head according to Claim 8, wherein the insulating layer is formed of SiO_2 , while the stopper layer is formed of at least one of Al_2O_3 [and/or] and Si_3N_4 .

Respectfully Submitted,


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